

Kanamura, Yumiko; Adachi, Isao; Tanaka, Takashi;  
Nishioka, Itsuo; Nonaka, Genichiro; Horikoshi, Isamu  
CORPORATE SOURCE: Fac. Med., Toyama Med. Pharm. Univ., Toyama, 930-01,  
Japan  
SOURCE: Biological & Pharmaceutical Bulletin (1993), 16(7),  
716-18  
CODEN: BPBLEO; ISSN: 0918-6158  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB The effects of 33 purified tannins and related compds. on  
NADH-ubiquinone-1 oxidoreductase activity in 4 kinds of organism  
(Paracoccus denitrificans, Bacillus subtilis, Photobacterium phosphoreum,  
and Thermus thermophilus HB-8) and rat liver mitochondria were examd. In  
addn. to pentagalloylglucose, which was reported as a potent inhibitor of  
NADH dehydrogenases (NDH), sanguin H-11, oolonghomobisflavan A, and  
polymd. procyanidin were potent inhibitors for both types of NDH (NDH-1  
and NDH-2). It was found that some other tannins contained in tea were  
also inhibitors of NDH from all organisms.  
IT 37064-30-5, Procyanidin C-1 121844-27-7, Assamicain B  
126737-60-8, Oolonghomobisflavan A  
RL: BIOL (Biological study)  
(inhibitory properties of, on NADH dehydrogenases of liver mitochondria  
and bacteria)

L20 ANSWER 8 OF 19 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1990:196860 HCAPLUS

DOCUMENT NUMBER: 112:196860

TITLE: Tannins and related compounds. XC. 8-C-ascorbyl  
(-)-epigallocatechin 3-O-gallate and novel dimeric  
flavan-3-ols, oolonghomobisflavans A and B, from  
oolong tea. (3)

AUTHOR(S): Hashimoto, Fumio; Nonaka, Genichiro; Nishioka, Itsuo  
CORPORATE SOURCE: Fac. Pharm. Sci., Kyushu Univ., Fukuoka, 812, Japan  
SOURCE: Chemical & Pharmaceutical Bulletin (1989), 37(12),  
3255-63

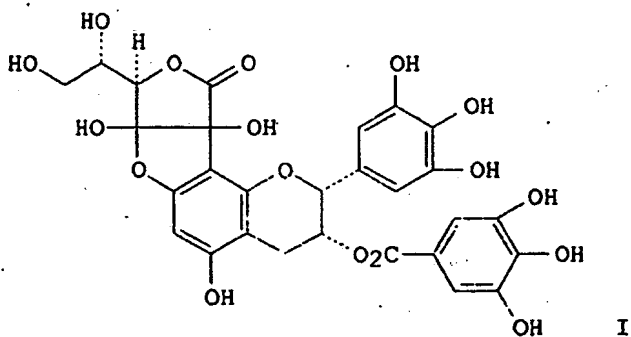
CODEN: CPBTAL; ISSN: 0009-2363

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 112:196860

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AB A chem. examn. of the polyphenolic constituents in com. oolong tea  
led to the isolation of 32 compds., including a new flavan-3-ol, 2 novel  
dimeric flavan-3-ols named oolonghomobisflavans A and B, and 8 new  
proanthocyanidins, together with 21 known polyphenols, including  
proanthocyanidins, hydrolyzable tannins, and red pigments. On the

basis of chem. and spectroscopic evidence, the flavan-3-ol was characterized as 8-C-ascorbyl (-)-epigallocatechin 3-O-gallate (I), and oolonghomobisflavans A and B were detd. to be dimeric flavan-3-ols in which 2 units were linked through a methylene bridge at the 8,8'- and 8,6'-positions, resp. The structures of the new proanthocyanidins were elucidated, mainly by tannase hydrolysis and thiolytic degrdn., to be epicatechin-(4.beta..fwdarw.8)-epigallocatechin 3-O-gallate, epicatechin 3-O-gallate-(4.beta..fwdarw.8)-epigallocatechin 3-O-gallate, catechin-(4.alpha..fwdarw.8)-epigallocatechin 3-O-gallate, prodelfphinidin B-4 3'-O-gallate, epicatechin 3-O-gallate-(4.beta..fwdarw.6)-epigallocatechin 3-O-gallate, epigallocatechin 3-O-gallate-(4.beta..fwdarw.6)-epicatechin 3-O-gallate, epi-afzelechin 3-O-gallate-(4.beta..fwdarw.6)-epigallocatechin 3-O-gallate, and prodelfphinidin B-2 3'-O-gallate.

IT 23567-23-9 29106-49-8 79907-44-1

126715-88-6, Oolonghomobisflavan B 126737-60-8,

Oolonghomobisflavan A

RL: BIOL (Biological study)

(of oolong tea)

IT 126716-06-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and hydrolysis of)

IT 126716-02-7P 126716-04-9P 126716-09-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and methylation of)

L20 ANSWER 9 OF 19 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1989:476723 HCAPLUS

DOCUMENT NUMBER: 111:76723

TITLE: Tannins and related compounds. LXXVII. Novel chalcane-flavan dimers, assamicains A, B and C, and a new flavan-3-ol and proanthocyanidins from the fresh leaves of *Camellia sinensis* L. var. *assamica* Kitamura

AUTHOR(S): Hashimoto, Fumio; Nonaka, Genichiro; Nishioka, Itsuo

CORPORATE SOURCE: Fac. Pharm. Sci., Kyushu Univ., Fukuoka, 812, Japan

SOURCE: Chemical & Pharmaceutical Bulletin (1989), 37(1),

77-85

CODEN: CPBTAL; ISSN: 0009-2363

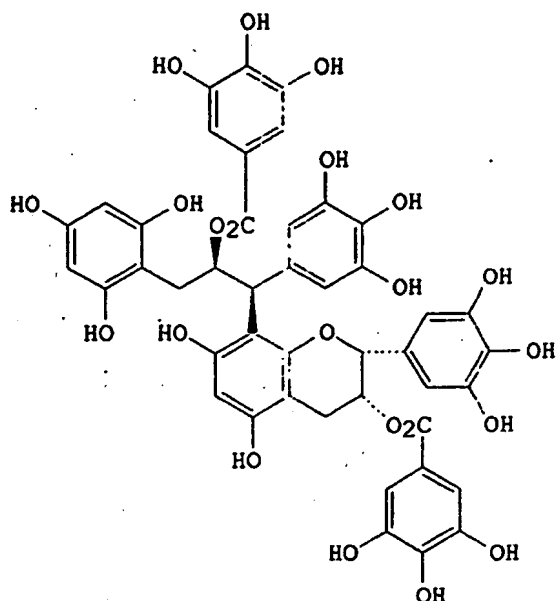
DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 111:76723

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AB Three novel chalcon-flavan dimers, assamicains A (I), B, and C, and a new flavan-3-ol, (-)-epigallocatechin 3-O-caffeate, and **proanthocyanidins** (catechin-(4a-8)-epigallocatechin and galocatechin-(4.alpha.-8)-**epicatechin**) have been isolated, together with known flavan-3-ols, **proanthocyanidins**, theasinensins, and hydrolyzable tannins, from the fresh leaves of **tea** (*C. sinensis* var. *assamica*) (Camelliaceae). Structures have been established on the basis of spectroscopic evidence in conjunction with thiolytic degrading and enzymic hydrolysis.

IT 121795-66-2, Assamicain A 121795-67-3

121844-27-7, Assamicain B

RL: BIOL (Biological study)

(from fresh leaves of *Camellia sinensis* *assamica*, isolation and structure and thiolytic degrading of)

IT 23567-23-9 29106-49-8 37064-30-5

RL: BIOL (Biological study)

(of fresh leaves of *Camellia sinensis* *assamica*)

IT 490-46-0, (-)-**Epicatechin** 24808-04-6, (-)-

**Epiafzelechin**

RL: BIOL (Biological study)

(of *Camellia sinensis* *assamica* fresh leaves)

IT 121795-71-9P 121795-72-0P 121844-29-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and methylation of)

IT 121795-70-8P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of)

L20 ANSWER 10 OF 19 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1988:470343 HCAPLUS

DOCUMENT NUMBER: 109:70343

TITLE: Tannins and related compounds. Part 62. Prenylated flavan-3-ols and **procyanidins** from *Illicium anisatum*

AUTHOR(S): Morimoto, Satoshi; Tanabe, Hisako; Nonaka, Genichiro; Nishioka, Itsuo

CORPORATE SOURCE: Fac. Pharm. Sci., Kyushu Univ., Fukuoka, 812, Japan

SOURCE: Phytochemistry (1988), 27(3), 907-10

CODEN: PYTCAS; ISSN: 0031-9422

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Two prenylated flavan-3-ols were isolated from *I. anisatum* and their structures characterized by chem. and spectroscopic means as 8-(3,3-dimethylallyl)-(+)-catechin and 6-(3,3-dimethylallyl)-(+)-catechin. In addn., a new proanthocyanidin was isolated, together with several know compds. The structure of the procyanidin was established as catechin-(4.alpha..fwdarw.8)-epicatechin-(4.beta..fwdarw.8)-catechin.

IT 20315-25-7, Procyanidin B-1 115532-12-2  
115532-13-3

RL: BIOL (Biological study)

(from *Illicium anisatum*, isolation and identification of)

L20 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1988:408263 HCAPLUS

DOCUMENT NUMBER: 109:8263

TITLE: Condensed tannins: desulfonation of hydroxybenzylsulfonic acids related to proanthocyanidin derivatives

AUTHOR(S): McGraw, Gerald W.; Laks, Peter E.; Hemingway, Richard W.

CORPORATE SOURCE: Dep. Chem., Louisiana Coll., Pineville, LA, 71360, USA

SOURCE: Journal of Wood Chemistry and Technology (1988), 8(1), 91-109

CODEN: JWCTDJ; ISSN: 0277-3813

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Studies on the desulfonation of 2,4,6-trihydroxybenzylsulfonic acid (I) and Na epicatechin-(4.beta.)-sulfonate showed that sulfonates .alpha. to a phloroglucinol ring were good leaving groups at ambient temp. and pH >8.0. In contrast, hydroxybenzylsulfonic acids with resorcinol or phenol hydroxyl functionality resisted desulfonation even at pH 12 and 90.degree.. It was not possible to make (2,4,6-trihydroxyphenyl)(4-hydroxyphenyl)methane or (2,4,6-trihydroxyphenyl)(2,4-dihydroxyphenyl)methane by slow addn. of I to alk. solns. of phenol or resorcinol. However, facile desulfonation of I derivs. permitted the use of condensed tannins from most conifer barks as intermediates for the formulation of water-resistant, cold-setting, wood-laminating adhesives. Under typical adhesive formulation conditions, the sulfonic acid groups on tannin derivs. from conifer barks would be displaced, resulting in water-insol. polymers.

IT 114903-07-0

RL: USES (Uses)

(disulfonation of model compds. for)

L20 ANSWER 12 OF 19 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1986:28390 HCAPLUS

DOCUMENT NUMBER: 104:28390

TITLE: Structure and antiherpetic activity among the tannins

AUTHOR(S): Takechi, Masayuki; Tanaka, Yasuo; Takehara, Manabu; Nonaka, Genichiro; Nishioka, Itsuo

CORPORATE SOURCE: Fac. Pharm. Sci., Kinki Univ., Higashiosaka, Japan

SOURCE: Phytochemistry (Elsevier) (1985), 24(10), 2245-50

CODEN: PYTCAS; ISSN: 0031-9422

DOCUMENT TYPE: Journal

LANGUAGE: English

AB In order to investigate the relationship between the antiherpetic activity and the structure of tannins, the activities of 38 such compds. were examd. The results indicate that the activities of hydrolyzable tannins were dependent on the no. of galloyl or hexahydroxydiphenoyl groups and those of condensed ones on the degree of condensation. On the other hand,